ABSTRACT

An active suture that can be used for both wound closure and the delivery of therapeutic fluids to the tissue surrounding a wound is disclosed. The active suture may include a connector designed to join a fluid source, such as a syringe or conventional IV delivery system, to an internal passageway that is embedded within a braided suture. The internal passageway may be comprised of a fine polymeric tube and is capable of conducting and emitting a fluid into at least a portion of the braided suture and surrounding tissue. The invention enables delivery of an efficacious volume of drug bearing solution on the order of milliliters per day, provides a high level of fluid delivery rate control enabling the physician to start or stop drug administration at his/her discretion, and offers a means of providing more than one type of medication that may be selected post-surgically in accord with unexpected patient symptoms that may arise.